



294-32 DIVII-CON.ST25
SEQUENCE LISTING

#4

RECEIVED
FEB 28 2002
TECH CENTER 1600/2900

A1
<110> Aerts, Johannes Maria F.G.

<120> A human chitinase, its recombinant production, its use for decomposing chitin, its use in therapy or prophylaxis against infectious diseases.

<130> Docket 294-32 DIVII/CON

<140> 09/997,827

<141> 2001-10-15

<160> 17

<170> PatentIn version 3.1

<210> 1

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Degenerate sense oligonucleotide

<220>

<221> misc_feature

<222> (12)..(12)

<223> N may be any nucleotide

<400> 1
tgytayttya cnaaytgggc

20

<210> 2

<211> 24

<212> DNA

294-32 DIVII-CON.ST25

<213> Artificial Sequence

<220>

<223> Degenerate anti-sense nucleotide

<220>

<221> misc_feature

<222> (7)..(16)

<223> N represents inosine

<400> 2

ccartcnarr tynacncrt craa

24

<210> 3

<211> 1643

<212> DNA

<213> Homo sapiens

<400> 3

ctgagctgca tcatggtgcg gtctgtggcc tgggcagggt tcatggtcct gctgatgatc	60
ccatggggct ctgctccaaa actggtctgc tacttcacca actgggcca gtacagacag	120
ggggaggctc gcttcctgcc caaggacttg gacccagcc ttgacacca cctcatctac	180
gccttcgctg gcatgaccaa ccaccagctg agcaccactg agtggaatga cgagactctc	240
taccaggagt tcaatggcct gaagaagatg aatcccaagc tgaagaccct gttagccatc	300
ggaggctgga atttcggcac tcagaagttc acagatatgg tagccacggc caacaaccgt	360
cagacctttg tcaactcggc catcaggttt ctgcgcaa atacagctttga cggccttgac	420
cttgactggg agtaccaggg aagccagggg agccctgccg tagacaagga gcgcttcaca	480
accctggtac aggacttggc caatgccttc cagcaggaag cccagacctc aggggaaggaa	540
cgccttcttc tgagtgcagc ggttcagct gggcagacct atgtggatgc tggatacgag	600
gtggacaaaa tcgcccagaa cctggatttt gtcaacctta tggcctacga cttccatggc	660
tcttgggaga aggtcacggg acataacagc cccctctaca agaggcaaga agagagtgggt	720
gcagcagcca gcctcaacgt ggatgctgct gtgcaacagt ggctgcagaa ggggacctc	780
gccagcaagc tgatccttgg catgcctacc tacggacgct ccttcacact ggcctcctca	840
tcagacacca gagtgggggc cccagccaca gggctctggc ctccaggccc cttcaccaag	900

294-32 DIVII-CON.ST25

gaaggaggga tgctggccta ctatgaagtc tgctcctgga agggggccac caaacagaga 960
atccaggatc agaaggtgcc ctacatcttc cgggacaacc agtgggtggg ctttgatgat 1020
gtggagagct tcaaaaccaa ggtcagctat ctgaagcaga agggactggg cggggccatg 1080
gtctgggcac tggacttaga tgactttgcc ggcttctcct gcaaccaggg ccgatacccc 1140
ctcatccaga cgctacggca ggaactgagt cttccatact tgccttcagg caccgccagag 1200
cttgaagttc caaaaccagg tcagccctct gaacctgagc atggccccag ccctggacaa 1260
gacacgttct gccagggcaa agctgatggg ctctatcca atcctcggga acggtccagc 1320
ttctacagct gtgcagcggg gcggctgttc cagcaaagct gcccgcacagg cctggtgttc 1380
agcaactcct gcaaatgctg cacctggaat tgagtcgtaa agcccccca gtccagcttt 1440
gaggctgggc ccaggatcac tctacagcct gcctcctggg ttttcctggg ggccgcaatc 1500
tggctcctgc aggcccttct gtggtcttcc tttatccagg ctttctgctc tcagccttgc 1560
cttccttttt tctgggtctc ctgggctgcc cctttcactt gcaaaataaa tctttggttt 1620
gtgcccctct tcaaaaaaaaa aaa 1643

<210> 4

<211> 466

<212> PRT

<213> Homo sapiens

<400> 4

Met Val Arg Ser Val Ala Trp Ala Gly Phe Met Val Leu Leu Met Ile
1 5 10 15

Pro Trp Gly Ser Ala Ala Lys Leu Val Cys Tyr Phe Thr Asn Trp Ala
20 25 30

Gln Tyr Arg Gln Gly Glu Ala Arg Phe Leu Pro Lys Asp Leu Asp Pro
35 40 45

Ser Leu Cys Thr His Leu Ile Tyr Ala Phe Ala Gly Met Thr Asn His
50 55 60

Gln Leu Ser Thr Thr Glu Trp Asn Asp Glu Thr Leu Tyr Gln Glu Phe
65 70 75 80

Asn Gly Leu Lys Lys Met Asn Pro Lys Leu Lys Thr Leu Leu Ala Ile
85 90 95

Gly Gly Trp Asn Phe Gly Thr Gln Lys Phe Thr Asp Met Val Ala Thr

294-32 DIVII-CON.ST25
105 110

100

Ala Asn Asn Arg Gln Thr Phe Val Asn Ser Ala Ile Arg Phe Leu Arg
115 120 125

Lys Tyr Ser Phe Asp Gly Leu Asp Leu Asp Trp Glu Tyr Pro Gly Ser
130 135 140

Gln Gly Ser Pro Ala Val Asp Lys Glu Arg Phe Thr Thr Leu Val Gln
145 150 155 160

Asp Leu Ala Asn Ala Phe Gln Gln Glu Ala Gln Thr Ser Gly Lys Glu
165 170 175

Arg Leu Leu Leu Ser Ala Ala Val Pro Ala Gly Gln Thr Tyr Val Asp
180 185 190

Ala Gly Tyr Glu Val Asp Lys Ile Ala Gln Asn Leu Asp Phe Val Asn
195 200 205

Leu Met Ala Tyr Asp Phe His Gly Ser Trp Glu Lys Val Thr Gly His
210 215 220

Asn Ser Pro Leu Tyr Lys Arg Gln Glu Glu Ser Gly Ala Ala Ala Ser
225 230 235 240

Leu Asn Val Asp Ala Ala Val Gln Gln Trp Leu Gln Lys Gly Thr Pro
245 250 255

Ala Ser Lys Leu Ile Leu Gly Met Pro Thr Tyr Gly Arg Ser Phe Thr
260 265 270

Leu Ala Ser Ser Ser Asp Thr Arg Val Gly Ala Pro Ala Thr Gly Ser
275 280 285

Gly Thr Pro Gly Pro Phe Thr Lys Glu Gly Gly Met Leu Ala Tyr Tyr
290 295 300

Glu Val Cys Ser Trp Lys Gly Ala Thr Lys Gln Arg Ile Gln Asp Gln
305 310 315 320

Lys Val Pro Tyr Ile Phe Arg Asp Asn Gln Trp Val Gly Phe Asp Asp
325 330 335

Val Glu Ser Phe Lys Thr Lys Val Ser Tyr Leu Lys Gln Lys Gly Leu
340 345 350

Gly Gly Ala Met Val Trp Ala Leu Asp Leu Asp Asp Phe Ala Gly Phe

355

360

294-32 DIVII-CON.ST25

365

Ser Cys Asn Gln Gly Arg Tyr Pro Leu Ile Gln Thr Leu Arg Gln Glu
 370 375 380

Leu Ser Leu Pro Tyr Leu Pro Ser Gly Thr Pro Glu Leu Glu Val Pro
 385 390 395 400

Lys Pro Gly Gln Pro Ser Glu Pro Glu His Gly Pro Ser Pro Gly Gln
 405 410 415

Asp Thr Phe Cys Gln Gly Lys Ala Asp Gly Leu Tyr Pro Asn Pro Arg
 420 425 430

Glu Arg Ser Ser Phe Tyr Ser Cys Ala Ala Gly Arg Leu Phe Gln Gln
 435 440 445

Ser Cys Pro Thr Gly Leu Val Phe Ser Asn Ser Cys Lys Cys Cys Thr
 450 455 460

Trp Asn
 465

<210> 5

<211> 1713

<212> DNA

<213> Homo sapiens

<400> 5

ctgagctgca tcatggtgcg gtctgtggcc tgggcagggt tcatggtcct gctgatgac	60
ccatggggct ctgctccaaa actggtctgc tacttcacca actgggcca gtacagacag	120
ggggaggctc gcttcctgcc caaggacttg gacccagcc ttgacacca cctcatctac	180
gccttcgctg gcatgacca ccaccagctg agcaccactg agtggaatga cgagactctc	240
taccaggagt tcaatggcct gaagaagatg aatcccaagc tgaagaccct gttagccatc	300
ggaggctgga atttcggcac tcagaagttc acagatatgg tagccacggc caacaaccgt	360
cagacctttg tcaactcggc catcagggtt ctgcgcaa atacagctttga cggccttgac	420
cttgactggg agtaccagg aagccagggg agccctgcc tagacaagga gcgcttcaca	480
accctggtac aggacttggc caatgccttc cagcaggaag cccagacctc aggggaaggaa	540
cgccttcttc tgagtgcagc ggttccagct gggcagacct atgtggatgc tggatacga	600
gtggacaaaa tcgcccagaa cctggatttt gtcaacctta tggcctacga cttccatggc	660

294-32 DIVII-CON.ST25

tcttgggaga aggtcacggg acataacagc cccctctaca agaggcaaga agagagtggg 720
 gcagcagcca gcctcaacgt ggatgctgct gtgcaacagt ggctgcagaa ggggacccct 780
 gccagcaagc tgatccttgg catgcctacc tacggacgct ccttcacact ggcctcctca 840
 tcagacacca gagtgggggc cccagccaca gggctctggca ctccaggccc cttaccaag 900
 gaaggaggga tgctggccta ctatgaagtc tgctcctgga agggggccac caaacagaga 960
 atccaggatc agaaggtgcc ctacatcttc cgggacaacc agtgggtggg ctttgatgat 1020
 gtggagagct tcaaaaccaa ggtcagctat ctgaagcaga agggactggg cggggccatg 1080
 gtctgggcac tggacttaga tgactttgcc ggcttctcct gcaaccaggg ccgatacccc 1140
 ctcatccaga cgctacggca ggaactgaat gggtaaagcc ttaactgcct gtcacatgtg 1200
 aggccagggtg ttgcctgtgg cactgtgctt cagctgtagg tcttcatac ttgccttcag 1260
 gcaccccaga gcttgaagtt ccaaaaccag gtcagccctc tgaacctgag catggcccaa 1320
 gccctggaca agacacgttc tgccagggca aagctgatgg gctctatccc aatcctcggg 1380
 aacggtccag cttctacagc tgtgcagcgg ggcggctgtt ccagcaaagc tgcccgcag 1440
 gcctggtgtt cagcaactcc tgcaaatgct gcacctggaa ttgagtcgta aagccccctc 1500
 agtccagctt tgaggctggg cccaggatca ctctacagcc tgcctcctgg gttttcctgg 1560
 gggccgcaat ctggctcctg caggcctttc tgtggtcttc ctttatccag gctttctgct 1620
 ctcagccttg ccttcctttt ttctgggtct cctgggctgc ccctttcact tgcaaaaataa 1680
 atctttggtt tgtgccccctc aaaaaaaaaa aaa 1713

<210> 6

<211> 387

<212> PRT

<213> Homo sapiens

<400> 6

Met Val Arg Ser Val Ala Trp Ala Gly Phe Met Val Leu Leu Met Ile
 1 5 10 15

Pro Trp Gly Ser Ala Ala Lys Leu Val Cys Tyr Phe Thr Asn Trp Ala
 20 25 30

Gln Tyr Arg Gln Gly Glu Ala Arg Phe Leu Pro Lys Asp Leu Asp Pro
 35 40 45

Ser Leu Cys Thr His Leu Ile Tyr Ala Phe Ala Gly Met Thr Asn His
 50 55 60

294-32 DIVII-CON.ST25

Gln Leu Ser Thr Thr Glu Trp Asn Asp Glu Thr Leu Tyr Gln Glu Phe
65 70 75 80

Asn Gly Leu Lys Lys Met Asn Pro Lys Leu Lys Thr Leu Leu Ala Ile
85 90 95

Gly Gly Trp Asn Phe Gly Thr Gln Lys Phe Thr Asp Met Val Ala Thr
100 105 110

Ala Asn Asn Arg Gln Thr Phe Val Asn Ser Ala Ile Arg Phe Leu Arg
115 120 125

Lys Tyr Ser Phe Asp Gly Leu Asp Leu Asp Trp Glu Tyr Pro Gly Ser
130 135 140

Gln Gly Ser Pro Ala Val Asp Lys Glu Arg Phe Thr Thr Leu Val Gln
145 150 155 160

Asp Leu Ala Asn Ala Phe Gln Gln Glu Ala Gln Thr Ser Gly Lys Glu
165 170 175

Arg Leu Leu Leu Ser Ala Ala Val Pro Ala Gly Gln Thr Tyr Val Asp
180 185 190

Ala Gly Tyr Glu Val Asp Lys Ile Ala Gln Asn Leu Asp Phe Val Asn
195 200 205

Leu Met Ala Tyr Asp Phe His Gly Ser Trp Glu Lys Val Thr Gly His
210 215 220

Asn Ser Pro Leu Tyr Lys Arg Gln Glu Glu Ser Gly Ala Ala Ala Ser
225 230 235 240

Leu Asn Val Asp Ala Ala Val Gln Gln Trp Leu Gln Lys Gly Thr Pro
245 250 255

Ala Ser Lys Leu Ile Leu Gly Met Pro Thr Tyr Gly Arg Ser Phe Thr
260 265 270

Leu Ala Ser Ser Ser Asp Thr Arg Val Gly Ala Pro Ala Thr Gly Ser
275 280 285

Gly Thr Pro Gly Pro Phe Thr Lys Glu Gly Gly Met Leu Ala Tyr Tyr
290 295 300

Glu Val Cys Ser Trp Lys Gly Ala Thr Lys Gln Arg Ile Gln Asp Gln
305 310 315 320

294-32 DIVII-CON.ST25

Lys Val Pro Tyr Ile Phe Arg Asp Asn Gln Trp Val Gly Phe Asp Asp
 325 330 335

Val Glu Ser Phe Lys Thr Lys Val Ser Tyr Leu Lys Gln Lys Gly Leu
 340 345 350

Gly Gly Ala Met Val Trp Ala Leu Asp Leu Asp Asp Phe Ala Gly Phe
 355 360 365

Ser Cys Asn Gln Gly Arg Tyr Pro Leu Ile Gln Thr Leu Arg Gln Glu
 370 375 380

Leu Asn Gly
 385

<210> 7

<211> 11

<212> PRT

<213> Homo sapiens

<400> 7

Phe Asp Gly Leu Asp Leu Asp Trp Glu Tyr Pro
 1 5 10

<210> 8

<211> 11

<212> PRT

<213> Autographa californica

<400> 8

Phe Asp Gly Val Asp Ile Asp Trp Glu Phe Pro
 1 5 10

<210> 9

<211> 11

<212> PRT

<213> Manduca sexta

<400> 9

294-32 DIVII-CON.ST25

Phe Asp Gly Leu Asp Leu Asp Trp Glu Tyr Pro
1 5 10

<210> 10

<211> 11

<212> PRT

<213> Brugia malayi

<400> 10

Phe Asp Gly Phe Asp Leu Asp Trp Glu Tyr Pro
1 5 10

<210> 11

<211> 11

<212> PRT

<213> Homo sapiens

<400> 11

Phe Asp Gly Leu Asp Leu Phe Phe Leu Tyr Pro
1 5 10

<210> 12

<211> 11

<212> PRT

<213> Homo sapiens

<400> 12

Phe Asp Gly Leu Asp Leu Ala Trp Leu Tyr Pro
1 5 10

<210> 13

<211> 11

<212> PRT

<213> Mus musculus

<400> 13

294-32 DIVII-CON.ST25

Phe Asp Gly Leu Asn Leu Asp Trp Gln Tyr Pro
1 5 10

<210> 14

<211> 11

<212> PRT

<213> Aphanocladium album

<400> 14

Phe Asp Gly Ile Asp Ile Asp Trp Glu Tyr Pro
1 5 10

<210> 15

<211> 11

<212> PRT

<213> Trichoderma harzianum

<400> 15

Phe Asp Gly Ile Asp Val Asp Trp Glu Tyr Pro
1 5 10

<210> 16

<211> 11

<212> PRT

<213> Bacillus circulans

<400> 16

Phe Asp Gly Val Asp Leu Asp Trp Glu Tyr Pro
1 5 10

<210> 17

<211> 11

<212> PRT

<213> Nicotiana tabacum class v

<400> 17

AI
CONT

294-32 DIVII-CON.ST25

AI
cont

Phe	His	Gly	Leu	Asp	Leu	Asp	Trp	Glu	Tyr	Pro
1				5					10	